

SILHOUETTE™ T5 & Low Ceiling Applications

A • C A S E • S T U D Y

Philips Lighting Company's slim new SILHOUETTE™ T5 fluorescent lamp is making a strong case for indirect lighting in low-ceiling office spaces. For offices with partitioned workstations and lots of computer screens, shadowless, glare-free indirect systems often provide optimal lighting. Indirect lighting fixtures with T12 and T8 fluorescent lamps must often be suspended at least 24 inches below the ceiling. SILHOUETTE T5s, due to their low profile and optical efficiency, can be suspended as little as 15 inches from the ceiling. Luminaire design flexibility is another major benefit of the lamp's slender size. T5 makes indirect lighting not only possible, but highly effective and super energy-efficient where ceiling heights are as low as 9 ft.

A terrific example is the just completed MedPartners Data Center in Anaheim, CA. According to the principal architect, Nathaniel S. Wilson, AIA, CLJ Associates, Inc. of Culver City, CA, "[SILHOUETTE] achieved soft lighting on the workstations and on the ceilings with fixtures suspended only 18 inches below the existing 9 ft. ceiling. The aisles are lighted with spill light from the ceiling, eliminating the need for additional fixtures. And the T5 lamps with a color temperature of 3500K were chosen to best compliment the color scheme of the space." A high CRI of 85 assures that the lighting accurately renders tasks, furnishings, and workers' appearance.

The measured illumination level on the desks is 46 fc, which was accomplished with **only 1 watt per square foot**. The lighting design is so efficient that it surpassed the stringent Title 24 California energy code and earned the project a rebate from the local utility.

A crucial element of soft, glare-free indirect lighting is uniformity of brightness ratios across the ceiling. With conventional (i.e., T8 or T12) indirect fixtures, good uniformity can only be achieved by suspending luminaires 24 inches or more from the ceiling. With the low ceilings at MedPartners, the bottom of the fixture would hang below



SILHOUETTE™ T5, a 5/8-inch diameter lamp, provides uniform, indirect lighting in areas with low ceilings.

Let's make things better.



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Philips Lighting Meets the Challenge

7 feet, which is not allowed by building codes. The $\frac{5}{8}$ -inch diameter of the SILHOUETTE™ T5 lamp allows the fixture to be smaller, the optics of the reflector to be more precise, and the suspension to be as little as 15 inches.

The thin cross section of the T5 lamp allowed the luminaire designer, LAM Lighting, to optically engineer a reflector that spreads the light more evenly along the ceiling than would have been possible with any other fluorescent lamp. Because SILHOUETTE T5 lamps are so thin, the fixtures themselves can be very low profile: only 2 inches high.

SILHOUETTE lamps are designed for use with efficient, low-profile electronic ballasts to provide excellent efficacies up to 104 lumens per watt, which could mean fewer luminaires are required than with other lamps. And this powerful output is sustained with 97% lumen maintenance. The wedge shaped LAM fixture selected by Wilson and interior designer Stephanie Crane, also of CLI, employs two T5 lamps with a fixture efficiency of 90%!

The outstanding results at MedPartners Data Center prove that SILHOUETTE T5 provides refined, practical, and economical indirect lighting. T5 direct and direct-indirect are also attractive, low-profile office lighting solutions. Numerous other applications such as wallwashing, sign lighting, case lighting, hidden accents, handrails, under shelf lighting and perimeter covers show the versatility of this slim new lamp. T5s are the thinnest general service fluorescent lamps available.



Benefits of SILHOUETTE™ T5

- *Extremely versatile for use in general lighting and low-profile specialty applications*
- *Tiny $\frac{5}{8}$ -inch diameter allows optical precision and high fixture efficiencies*
- *Superior CRI of 85 in 3000K, 3500K, and 4100K*
- *Long life rated at 20,000 hrs.*
- *97% lumen maintenance at end of life*
- *Up to 104 lumens per watt*
- *Available in four nominal lengths: 2 ft. (1350 lumens), 3 ft. (2100 lumens), 4 ft. (2900 lumens), 5 ft. (3650 lumens)*
- *Comes in a variety of wattages: 14, 21, 28 and 35 watts*

Philips Lighting Company
200 Franklin Square Drive ■ P.O. Box 6800
Somerset, NJ 08875-6800
1-800-555-0050
www.lighting.philips.com/nam

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Philips Lighting
281 Hillmount Road
Markham, Ontario L6C 2S3
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